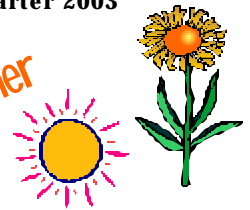


CROSSSECTION

Summer



INSIDE THIS ISSUE:

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Special Points of Interest

- ? Read about Lake SWCD's stream crossing sign project!
- ? Mark your calendars now for Lake SWCD's Annual Meeting-October 2, 2003!
- ? Need to stock your pond? Lake SWCD is having a Fish Sale—see details inside!

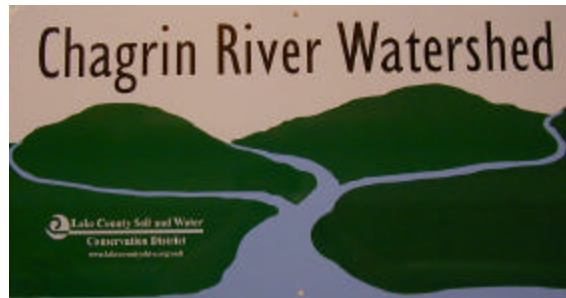
Come visit us
at the Lake
County
Fair,
August
12-17!



Make a Difference!

Visit nature.org/naturevalley—for every click, Nature Valley will donate \$1 to The Nature Conservancy. While you're there, you can learn more about invasive species and how Nature Valley is supporting the Conservancy's work.

NAME THAT STREAM...STREAM CROSSING IDENTIFICATION PROJECT IN LAKE COUNTY



Did you know that the majority of the smaller streams in Lake County have names? It turns out that Lake County has incredible stream resources due to its glacial history, topography, and large tracts of forested areas which support some of the most unique small stream habitats in Ohio. Unfortunately many of these waterways remain nameless to most people. "Wild"

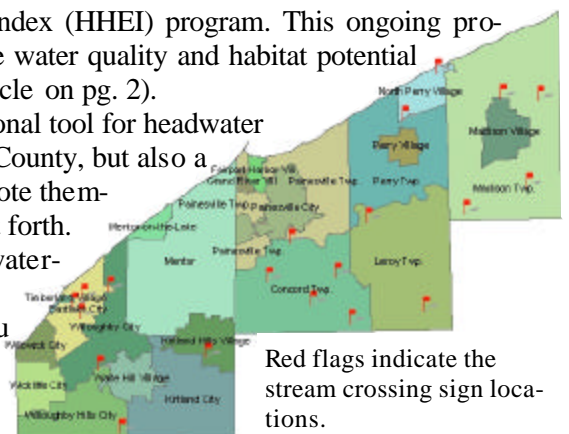
and "Scenic" designations for the Grand and Chagrin Rivers and the uniqueness of the Mentor Marsh and Arcola Creek wetlands often draw attention away from Lake County's smaller but critical stream resources. After all, the health of a river is only as good as the quality of water of the streams that feed it.

In an effort to bring attention to the unique water quality resources of Lake County, Lake SWCD, in conjunction with the Lake County Engineer and local sponsors, has developed a stream sign program. The Lake County SWCD was awarded a \$5,000 grant from The Cleveland Foundation to help fund the *Stream Crossing Identification Project*. This project consists of stream crossing and watershed signs to be placed along roadways where they cross headwater streams of various watersheds throughout Lake County. This project will be a step towards educating Lake County residents about the watersheds in which they live.

This project involves installing 40 stream signs (at 20 locations) along major routes of travel where citizens pass over headwater streams. Headwater streams are the small streams that come together to form a river. In addition to the stream crossing signs, there will be several pages on the District web site dedicated to the *Stream Crossing Identification Project*. These pages will contain a project overview with a site location map, stream maps, and biological and chemical information about the streams that are being sponsored through this project. These web pages will also contain program/contact information about our collaborating organizations, headwater and nonpoint source pollution issues, and links to other nonpoint source pollution issues and District services.

Much of this technical information found in the website will be drawn from the District's Headwater Habitat Evaluation Index (HHEI) program. This ongoing project serves as an initiative to determine the water quality and habitat potential for Lake County's smaller streams (see article on pg. 2).

This project is not only an educational tool for headwater streams and watershed awareness in Lake County, but also a chance for local watershed groups to promote themselves and the efforts they are trying to put forth. All 20 of the sites are sponsored by local watershed groups, municipalities, and private citizens. Pay attention to these signs as you travel throughout Lake County—see if you can find all 20 sites! ?



Red flags indicate the stream crossing sign locations.

STREAM SIGN LOCATIONS AND SPONSORS

Sponsor	Stream	Watershed	Site Location	Community
Chagrin River Land Conservancy	-Caves Creek -Gully Brook	Chagrin River	-Worrell Road -River Road	Kirtland/Willby. Hills Willby./Willby. Hills
Chagrin River Salmon Association	Corporation Creek	Chagrin River	Lakeshore Blvd.	Eastlake
The City of Willoughby	Ward Creek	Chagrin River	Lost Nation Rd.	Willoughby
Eastlake Residents for Wooded Land Preservation	Corporation Creek	Chagrin River	Erie Road	Eastlake
Friends of Arcola Creek, Inc.	Arcola Creek	Arcola Creek	-Rt. 20 -Hubbard Road	Madison Twp.
Grand River Partners, Inc.	-Bates Creek -Big Creek -Ellison Creek -Gordon Creek -Talcott Creek	Grand River	-Rt. 86 -Rt. 608 -Prouty Road -Ravenna Road -Ford Road	-Leroy Twp. -Concord Twp. -Concord Twp. -Concord Twp. -Madison Twp.
The Holden Arboretum	E.Branch of Chagrin	Chagrin River	Booth Road	Kirtland Hills
Lake Metroparks	-Kellogg Creek -Paine Creek	Grand River	-Bike Path -Seeley Road	-Concord Twp. -Leroy Twp.
Lake SWCD	Mill Creek	Grand River	Doty Rd.	Madison Twp.
The Malarik Family	Ward Creek	Chagrin River	Reeves Road	Eastlake
Village of North Perry	-Church Creek -Red Mill Creek	Lake Erie Tributary	-Townline Road -Rt. 20	North Perry Village
Western Reserve RC&D	Big Creek	Grand River	Williams Road	Concord Twp.

A WORK IN PROGRESS: HEADWATER STREAM STUDY

by **Matthew Scharver, Resource Protection Technician, Lake SWCD**

For the past three years, Lake SWCD has been conducting a comprehensive inventory of the County's stream resources. This inventory is being done largely on the headwater streams in the county. Headwaters include the source and upper reaches of larger streams and rivers. Water quality studies and habitat assessments on headwater streams will help identify targeted streams as having high or low water quality values. Physical and chemical characteristics are measured and biological activity is recorded and analyzed to determine the stream's health. Information compiled in the field is used to create geographic information system maps that locate high water quality stream resources and stream resources that may be impaired.



Lake SWCD employees collect macroinvertebrate samples as part of the stream inventory.

This summer the District is targeting the City of Kirtland. Water quality studies and habitat assessments on headwater streams in the City of Kirtland will take place from June through October of 2003. The information collected will help the City of Kirtland continue to further protect its invaluable stream resources of the Chagrin River and East Branch of the Chagrin River. If landowners have questions regarding streams or water quality in their area, they can contact the District at (440) 350-2730. This project is being funded largely by a Great Lakes Basin soil erosion and sediment control grant. ?

You're Invited...

57th Annual Meeting and Banquet



Date: Thursday, October 2, 2003

Time: 6:00-7:00 PM Social Hour including cash bar

7:00-7:45 PM BBQ Chicken & Rib Dinner
(vegetarian lasagna available)

7:45 PM Business Meeting

-Welcome

-Nomination Report

-Election Procedure

8:00 PM Feature Presentation by Jim Bissell
of the Cleveland Museum of
Natural History

8:30 PM Recognition

Closing Remarks

The evening will conclude with our Door Prize Extravaganza, courtesy of Lake County businesses and nurseries!

The Election for two Board Supervisors to serve terms of three years, from 2004 – 2006 will be conducted by the Ohio Department of Natural Resources. If you are unable to attend the meeting but would still like to vote in the election, contact the District Office for information about receiving an absentee ballot. Voters must be Lake County residents or landowners and 18 years or older.

Reservations are required! Tickets are \$18.00 each and can be obtained from the District Office or any Board or Staff member until September 25th. We look forward to seeing familiar faces and meeting new ones there!?

Become a Lake SWCD Board Supervisor!

This October, the Lake Soil & Water Conservation District will elect two supervisors to fill terms that expire in 2003. Does this sound like something that might interest you?

What is the SWCD Board? The Lake Soil & Water Conservation District Board is a five member governing body for the SWCD. Supervisors are elected to three-year terms. The supervisors serve as volunteers and are granted specific powers under Chapter 1515 of the Ohio Revised Code. Anyone who is a resident of Lake County and at least 18 years old may run for Board Supervisor. Conservation is a critical issue for Lake County, and the need for conservation leaders is essential.

What does the SWCD Board do? The SWCD Board determines the policies that set the direction for the work that the SWCD staff carries out in the county. They also determine the need for additional staff and work with local and state government to obtain funding for the programs they feel are necessary.

How much time does it take to be a board supervisor? There are twelve regular monthly board meetings, which are usually held the fourth Wednesday of each month at the District Office. The meetings begin at 7 PM and usually last a couple of hours. There are also a few special meetings, such as the Lake SWCD Annual Meeting, and opportunities to attend area, state and national events with other SWCD supervisors.

If you are interested in becoming a Board Supervisor or have more questions, simply contact the District Office at 440-350-2730, (toll free 1-800-899-5253, ext. 2730). ?



RESERVATIONS

DEADLINE: September 25, 2003

NAME: _____

ADDRESS: _____

CITY, STATE & ZIP: _____

PHONE: _____

OF GUESTS _____ NAMES OF GUESTS _____

Please indicate meal preference for each guest by number: Chicken/Ribs _____ Vegetarian _____
(If no preference is indicated, guests will receive Chicken/Ribs dinner)

TICKETS ARE \$18/PERSON AND WILL BE HELD AT THE DOOR
Make checks payable to Lake SWCD, 125 E. Erie St., Painesville, Ohio 44077

LAKE SOIL & WATER CONSERVATION DISTRICT

2003 FISH SALE

# Ordered	Description	Price	Total
_____	2" - 4" Large Mouth Bass	\$0.65 each	_____
_____	2" - 4" Bluegill	\$0.65 each	_____
_____	4" - 6" Channel Catfish	\$0.65 each	_____
_____	1" - 2" Fathead Minnows	\$0.05 each	_____
_____	8" - 12" Triploid White Amur	\$11.00 each	_____
		Grand Total \$	_____

*Order
deadline is
Friday,
October 10,
2003!*

Name: _____

Street Address: _____

City, State, Zip: _____

Phone (day) _____ (evening) _____

_____ I will be driving more than 30 minutes on my return trip

ORDERING and PICK-UP INFORMATION

The District sells fish for stocking ponds as a service to landowners in the county. These fish come healthy and ready to be gently placed in your pond; *we can not guarantee survival.* **Allow new ponds to mature for at least 1 year before stocking with fish, for best survival rates.**

- Please fill out the order form above. **Keep bottom half and return top.** Send check or money order payable to:
Lake SWCD
125 East Erie St., Painesville, OH 44077
Payment must accompany order!
- Orders will be available for pick-up on Thursday, October 23, 10:00 am–10:45 am at the Lake County Fairgrounds, 1301 Mentor Avenue. **MARK YOUR CALENDARS NOW**, *as there will be no notification sent to remind you of the pick-up day and time.*
- All fish must be picked up at this time; we cannot hold or deliver your fish for you. **NO REFUNDS ON FISH NOT PICKED UP.***
- The deadline for ordering is Friday, October 10, 2003.
- You must bring a plastic lined bucket for each 2 amurs or a large garbage container for more than 2 amurs. A plastic lined 5 gallon bucket will handle 50 of any of the other species. **Let us know if you will be driving more than 30 minutes on your way home.**



Thank you for your support and interest in this project! Proceeds from the 2003 Fish Sale are used to fund environmental education efforts in Lake County, and to assist with private land conservation.

LAKE SWCD TEACHER OF THE YEAR

Lake SWCD would like to congratulate Karen Rayl for being chosen as Lake SWCD's 2003 Conservation Teacher of the Year. Rayl teaches 7th grade Science at Wickliffe Middle School. Rayl is committed to teaching her students about important conservation issues. "I think it is very important for youth not only to learn and experience the earth's biosphere but also to appreciate and respect all it has to offer as well. The skills they acquire must continue not just through a chapter in a book but also throughout the school year and beyond as an adult." Rayl incorporates several hands on activities into her curriculum



to help achieve this goal. For the past 9 years, Rayl and her classes have acted as volunteers of the ODNR, Scenic Rivers Program by monitoring a portion of the Chagrin River. Rayl's students participate in an "Adopt a tree" program, which involves a litter pick up around the school grounds, and she has her students participate in the Jason Project through Case Western Reserve University. "As a teacher it is my job to motivate the students' desires to learn about conservation," says Rayl.

This award program is sponsored by the Ohio Federation of Soil & Water Conservation Districts (OFSWCD), the National Association of Conservation Districts (NACD), and Syngenta. ?

Recommendations for 1 Acre of water:

100 2" to 4" Large Mouth Bass
 200 3" to 4" Bluegill
 50 to 75 4" to 6" Channel Catfish (depending on how much you fish.)
 500 to 1000 Minnows (optional)

Pond Tips: Did my pond experience a fish kill?

The most common cause of fish kill in Ohio ponds is suffocation due to lack of oxygen. This can occur due to several reasons. Decomposition of organic matter (dead vegetation) can lead to oxygen depletion in the water column. As aquatic vegetation and organic matter decompose, oxygen is used by decomposers to breakdown the matter. During the summer months, decomposition may use up what little oxygen is in the water column, resulting in an insufficient amount for fish.

Another cause of oxygen depletion is inversion or "turn over" of your pond. During late Spring and Summer your pond develops layers as a result of temperature and density differences. Rapid warming in the upper level of the pond results in less dense water, which has a lower oxygen holding capacity as well. Warmer water holds less oxygen than cooler water. However, with photosynthesis and oxygen exchange at the water surface - atmosphere interface - enough oxygen is provided for the minimum needs for the fish. The cooler layer of water in the bottom of the pond has the potential to hold more oxygen, but due to the lack of photosynthesis and the decomposition of organic matter there is actually less dissolved oxygen in the lower level compared to the top layer. When a turnover of the layers occurs due to strong winds, a rapid temperature change, or a inflow of a large amount of water, the cooler (less oxygenated) layer goes to the top and the warmer (more oxygenated) layer goes to the bottom. Fish like to stay near the surface, so when the cooler oxygen deficient water becomes the top layer the fish experience suffocation. What can the pond owner do?

~An algae management plan can help control large accumulations of organic matter, which use a large amount of oxygen when it decomposes.

~Use of an aerator will enable oxygen to diffuse into the water column and keep the water well oxygenated. ?

Calculating Pond Size:

Determining Surface Area of your pond:

- ? Circular shaped pond: -measure the total distance around the pond surface in feet and multiply this number by itself and divide by 547,560
- ? Rectangular shaped pond: -measure the length of one side and the width of one side and multiple these number together and divide by 43,560 (43,560 ft.²/acre)

Determining Average Depth of your pond:

Take 12 depth measurements uniformly spaced over your entire pond surface. Add the measurements together and divide by the total measurements taken.

Determining Acre Feet of your pond:

Multiply the surface area (acres) by the average depth (feet) to calculate the volume (acre-feet). One acre-foot equals 325,850 gallons of water. ?

WHO WANTS TO BE
A CONSERVATIONIST?

Celebrate Ohio's Bicentennial—test your knowledge of our great State with some Ohio Trivia. Look for the correct answers inside this newsletter! For more info. about Ohio's Bicentennial, check out: www.ohio200.org/default.asp

- What is Ohio's state tree?
A. Hemlock B. Sugar maple C. Oak tree D. Buckeye
- What is Ohio's state wildflower?
A. Trillium B. Purple loosestrife C. Milkweed D. Cosmos
- What is Ohio's state animal?
A. Flying squirrel C. White-tailed deer
B. Red fox D. River otter
- What is Ohio's state reptile?
A. Snapping turtle B. Ground skink C. Black-racer snake
- What is Ohio's state fossil?
A. Trilobite C. Brachiopod
B. Cephalopod D. Gastropod
- What is Ohio's state flower?
A. Day lily B. Daisy C. Red Rose D. Red Carnation
- What is Ohio's state beverage?
A. Iced tea B. Tomato juice C. Lemonade D. Dr. Pepper
- What is Ohio's state song?
A. "Carmen Ohio" C. "Hang On Sloopy!"
B. "The Ohio Canal Waltz" D. "Beautiful Ohio"
- What is Ohio's state insect?
A. Mayfly B. Ladybug C. Mosquito D. Firefly
- What is Ohio's state bird?
A. Cardinal B. Blue jay C. Oriole D. Robin
- What is Ohio's state motto?
A. Go Buckeyes!
B. Ohio, The Heart of it All
C. Best Location in the Nation
D. With God All Things Are Possible

LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

125 E. Erie St., Painesville, OH 44077

•440-350-2730 (main number) •FAX 440-350-2601

Toll-free •298-3334 ext. 2730 Madison/Perry •918-2730 Cleveland/Western Lake County

•1-800-899-LAKE outside Lake County only

Office Hours: Mon.-Fri. 7:30 am-4:00 pm

•E-mail: soil@lakecountyohio.org •Web site: www.lakecountyohio.org/soil

<p>AL BONNIS, District Conservationist, NRCS 350-2730</p> <p>PAM BROWN, District Secretary/Treasurer 350-2730</p> <p>DAN DONALDSON, District Administrator 350-2030</p> <p>CHAD EDGAR, Urban Stream Specialist 350-2032</p> <p>AMY KNISELY, Education/Information Coordinator 350-2033</p> <p>JOHN NIEDZIALEK, Western Reserve RC&D Coordinator 350-2034</p> <p>BRETT RODSTROM, Storm Water Specialist 350-2092</p> <p>MATTHEW SCHARVER, Resource Protection Tech. 350-2031</p>	<p>BOARD OF SUPERVISORS</p> <p>PAUL BELANGER, President</p> <p>ROBERT ZEITZ, Vice-President</p> <p>RICHARD BAKER, Treasurer</p> <p>DWAYNE BAILEY, Secretary</p> <p>CAROL FLECK, Fiscal Agent</p>
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MEMBER OF:

- American Farmland Trust
- Nursery Growers of Lake County, Inc.
- National Association of Conservation Districts
- Ohio Federation of Soil & Water Conservation Districts
- Lake County Farm Bureau

AN EQUAL OPPORTUNITY EMPLOYER

All Lake SWCD and USDA programs and services are available without regard to race, age, gender, national origin, political beliefs, color, religion, disability, sexual orientation, or marital or family status.

The public is invited to attend Lake SWCD's monthly Board meetings, held the fourth Wednesday of each month at 7:00 pm at 125 East Erie St., Painesville. Meeting announcements appear under the public agenda in the News-Herald. Please call in advance to let us know you will be attending.

Lake County Soil & Water
Conservation District
125 East Erie St., Painesville, OH 44077

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